

REMARKS

Favorable reconsideration and allowance of the claims of the present application, as amended, is respectfully requested.

In the present Office Action, now Final, the Examiner first rejected Claims 29-31 and 33-34 under 35 U.S.C. §112, second paragraph, as having claim language allegedly unclear and indefinite. For instance, it is alleged that Claim 29's recitation of a "first node" and "first processing work station" is unclear as to any relationship therebetween. Moreover, it was indicated that the relationship between "router queues" and a "workstation" is unclear. Moreover, Examiner indicates the phrase "permitting work at different phases of completion to flow through said cluster of workstations" is unclear.

Applicants, in this response, cancel Claim 29 and incorporate the subject matter thereof into Claim 34, amended and now re-cast in independent form to include most of the subject matter of canceled Claim 29.

In the re-drafting of Claim 34 in independent form, applicants have taken care to address the alleged informalities indicated in this rejection. Particularly, reference to first and second workstations is being deleted and the generic characterization of these as "nodes" is now provided in amended Claim 34. Applicants note for the Examiner that pages 6 and 7 of the application as originally filed provide virtually indistinguishable definitions of the terms "workstation" and "node". As the recitation of "workstation" has been omitted in amended Claim 34, this obviates the alleged lack of clarity regarding the relationship between "router queues" and a workstation. In fact, as shown in Fig. 1 of the originally filed specification, the first classifier node includes a plurality of router queues, each router dedicated for an appropriate type of work as dictated by a policy. With respect to the alleged unclear phrase: "permitting

work at different phases of completion to flow through said cluster of workstations", applicants in newly amended Claim 34 have removed the offending phrase.

In view of the foregoing, Applicants submit that new amended independent Claim 34 is now clear and definite and the Examiner is respectfully requested to withdraw the rejection under 35 U.S.C. §112, second paragraph.

Further, in the present Office Action, the Examiner rejected Claims 29-31 and 33-34 under 35 U.S.C. §103(a) as allegedly unpatentable over Bacon et al. U.S. Patent No. 6,430,538 (hereinafter "Bacon") in view of Acosta et al. U.S. Patent No. 6,166,729 (hereinafter "Acosta")

Applicants respectfully disagree.

Amended Claim 34, now re-cast in independent form to incorporate subject matter of filed independent Claim 29 and Claim 33 (all now canceled) is patentably distinct from the cited combination in several important respects.

The present invention as set forth in amended Claim 34, now independent, is directed to a method of distributing work through a cluster of workstations for efficient distributed processing, said cluster having a plurality of workstations interconnected over a network, the method comprising:

receiving a work request at a first processing node;

classifying, at said first processing node, the work request into one or more tasks;

assigning said one or more tasks to one or more router queues associated with respective router devices at said first processing node, a router capable of handling a specific task of a particular class of work;

dispatching said assigned one or more tasks for execution at a workstation at a second

processing node having an execution module residing therein, the execution module at said second processing node comprising one or more initiators for instantiating one or more objects to execute a respective work task, said initiators dynamically registering with a router to indicate readiness to accept work for processing, said objects instantiated by an initiator with a generic class name but having a different implementation specific to the node in which said initiator resides to enable use of system specific resources and enable a single version of an application to run on each node; and,

upon completion of said respective work tasks, each said one or more initiators providing to said respective router the completed work task at said first processing node and providing system specific statistics data associated with said initiator; and,

computing performance statistics of a router queue and said one or more initiators, a performance statistic including a total response time from dispatch of a work task from that router queue to an initiator, and the receipt of the completed work task at the router queue from that initiator, said total response time used to determine the performance of an initiator and categorize the initiator performance for determining said one or more initiators best suited to execute said one or more tasks; and,

queuing ready initiators at a respective router device based on said categorized initiator performance, wherein said best performing initiators are given priority for receiving new tasks from a respective router.

Respectfully no new matter is being entered. For example, the subject matter of amended Claim 34, to wit: upon completion of said work tasks, each said one or more initiator providing to said respective router a completed work task at said first processing node has support found in the originally filed specification, e.g., at pages 16 (under enumerated sections 7)

and 8), for example, and pages 19-20 that discuss the claimed "Initiators".

Moreover, the new claimed limitation of Claim 34 directed to the performance statistic as including a total response time from dispatch of a work task from that router queue to an initiator, and the receipt of the completed work task at the router queue from that initiator, said total response time used to determine the performance of an initiator and categorize the initiator performance is found in the originally filed specification, e.g., at page 16 (under enumerated section 7).

Moreover, the added limitation directed to queuing ready initiators at a respective router device based on the categorized initiator performance, the best performing initiators being given priority for receiving new tasks from a respective router has full support found in the originally filed specification in the paragraph bridging pages 16 and 17.

Applicants respectfully requests entry and consideration of the present amendment and submit that this amendment including claim changes could not have been earlier submitted due to the citing and application of Bacon and Acosta references by the Examiner for the first time in the present Office Action.

Respectfully, the Examiner's rejection of the claims is respectfully traversed.

As the Examiner acknowledges, Bacon does not provide a teaching or suggestion of the claimed limitations directed to determining performance statistics of said one or more router queues. Moreover, in view of new amended Claim 34, Bacon does not provide a teaching or suggestion of computing performance statistics of said one or more router queues and said one or more initiators as now claimed.

Moreover, Bacon does not provide a teaching or suggestion of the particular type of performance statistic, i.e., a performance statistic including a total response time from dispatch of

a work task from a router queue to an initiator and the receipt of a completed work task from that initiator, such that the total response time is used to determine the performance of an initiator and categorize the initiator performance.

While the Examiner cites Acosta as allegedly providing the teaching of determining performance statistics of said one or more router queues, applicants respectfully disagree.

First, Acosta is directed to non-analogous subject matter being directed to a remote digital image viewing methodology which has nothing to do at all with workflow management for distributed workstations as in the present invention.

Second, Acosta only speaks to gathering statistics associated at a queue dispatch with the statistics gathered by Acosta including the average queue latency and queue size. Applicants respectfully submit this has nothing to do with the particular initiator performance statistic computed by the present invention as claimed, to wit: performance statistic including a total response time from dispatch of a work task from a router queue to an initiator and the receipt of a completed work task at the router queue from that initiator which is used for determining said one or more initiators best suited to execute said one or more tasks.

Moreover, the amended Claim 34 setting forth the step of queuing ready initiators at a respective router device based on the categorized initiator performance, the best performing initiators being given priority for receiving new tasks from a respective router, is neither taught nor suggested by the cited combination of Bacon and Acosta.

It is noted that amended Claim 34 does not include a limitation found in canceled Claim 29 directed to adding additional initiators to execute said one or more tasks based on the performance statistics of said one or more router queues.

Claim 30 is being canceled herein without prejudice.

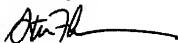
Note in view of the cancellation of Claim 29, Claim 31 is being amended to change its dependency upon new independent Claim 34.

In view of the foregoing, Applicants respectfully submit that amended independent Claim 34 obviates all the rejections based on 35 U.S.C. §103(a).

It is thus respectfully requested that the Examiner's rejections of these claims and all remaining claims dependent thereon, be withdrawn.

In view of the foregoing remarks herein, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned, Applicants' attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



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